

Name: _____ Date: _____
A2CC: More Practice with Vertex Form of a Parabola

For 1-13, find the vertex form of each of the following. Then sketch the graph. Indicate the axis of symmetry, vertex point, domain and range.

1. $y = x^2 + 6x + 9$

2. $y = x^2 - 8x + 15$

3. $y = x^2 + 6x + 10$

4. $y = x^2 + 14x + 40$

5. $y = x^2 - 2x - 5$

6. $y = x^2 + 4x$

7. $y = x^2 + 16x + 71$

8. $x^2 - 12x + y + 40 = 0$

9. $y = 2x^2 + 4x + 5$

10. $y = -x^2 - 14x - 59$

11. $y = 2x^2 + 36x + 170$

12. $6x^2 + 12x + y + 13 = 0$

13. $y = 3x^2 + 6x + 8$

In 14 and 15, find the vertex form and indicate the vertex and axis of symmetry.

14. $y = x^2 - x - 6$

15. $y = (x + 5)(x + 4)$